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ABSTRACT

This study used a "disguised-structured" technique for determining the differential saliency of race and affect on preference behavior of 60 5-, 6-, and 7-year-old Negro and Caucasian children. Positively and negatively valued objects were distributed by subjects among photographs of happy and sad Negro and Caucasian children. No racial preference was found among 5-year-olds of either race or among older Negro children; 6- and 7-year-old Caucasian children showed growing preference for the Caucasian stimuli. Preference for the happy stimuli was shown by all groups of children, the affect differences overriding all race preferences. Included are both references and a bibliography of sources not cited in the text. Appendixes provided include a duplication of task photographs, sample data form, and additional task tables. (Author/AJ)

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# DEVELOPMENTAL TRENDS IN THE SELECTIVE PERCEPTION OF RACE AND AFFECT BY YOUNG NEGRO AND CAUCASIAN CHILDREN

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This study used a "disguised-structured" technique for determining the differential saliency of race and affect on preference behavior of five-, six-, and seven-year-old Negro and Caucasian children. Positively and negatively valued objects were distributed by Ss among photographs of happy and sad Negro and Caucasian children. No racial preference was found among five-year-olds of either race or among older Negro children; six- and seven-year-old Caucasian children showed growing preference for the Caucasian stimuli. Preference for the happy stimuli was shown by all groups of children, the affect differences overriding all race preferences.

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## Introduction

The development of children's awareness of race and the formation of their attitudes concerning race have been investigated extensively. Parallel, independent investigations of growth in children's perception of affect and of its role as a determinant of behavior also have been numerous. The primary purpose of the present study was an attempt to relate the two lines of inquiry concerned with race and affect and to establish possible developmental shifts in the relative saliency of race and affect for young Negro and Caucasian children. The applicability of measurement techniques frequently used in research on affect preference also was determined for assessing children's perceptions of race.

## Related Research

The inappropriateness of adult questionnaire scales for young children has led to the evolution of special research procedures for the assessment of racial awareness and attitudes with preschool-aged Ss. These procedures are of two general designs, those based on self-report or projective statements and those based on differential performance on objective tasks. In the first category are tasks for assessing children's racial attitudes through techniques such as: identification of dolls and photographs with self (Clark & Clark, 1958; Horowitz, 1939); sentence and story completion (Radke, Trager, & Davis, 1949); puzzle and clay interviews (Goodman, 1952); doll assembly tasks (Stevenson & Stewart, 1958); and stories inferred from selected pictures (Morland, 1962). These procedures are extensions of traditional projective personality tests and are dependent on voluntary self-

descriptions or projective statements. Campbell (1950) identified such tasks as "non-disguised non-structured" designs for the direct assessment of attitudes.

Techniques of assessment based on differential performance on objective tasks include measures such as: semantic differential evaluative factors assigned to pictures as an index of attitude (Renninger & Williams, 1966; Williams & Roberson, 1967), visual preference on the Perceptual Reaction Test as effected by sex, grade, and race (Stabler, Spruill, & Eakin, 1967), children's clustering of evaluated objects with the concepts of black and white (Stabler, Johnson, Berke, & Baker, 1969), and the modification of social attitudes with operant procedures (Williams & Edwards, 1969). These "disguised-structured" measures (Campbell, 1950) are characterized by a task situation similar to that of an objective test in which the respondent's attention is focused on a goal oblique to the experimenter's purpose. Attitude has been assessed in these tasks from systematic bias in the test performance.

Evidence for the early development of racial awareness and attitudes has come from both the projective tests and those which use tasks of perceiving, learning, and evaluating. Research concerned with young children's responses to persons of different skin color has reported that patterns of differential response to physical characteristics are present as early as three years of age, and that by the time children are five years old, skin color is perceived as possessing both racial and social significance (Clark et. al., 1958; Morland, 1962; Radke et. al., 1949). Negro and Caucasian children as young as four years have shown consistent pre-

ference for the physical characteristics associated with the Caucasian race (Goodman, 1952; Landreth & Johnson, 1953; Radke & Trager, 1950). Negro Ss also have assigned negative roles to Negro-characterized stimuli more frequently than Caucasian Ss have assigned such roles to Caucasian stimuli (Stevenson et. al., 1958; Taylor, 1966).

Studies using selected developmental age levels of Ss suggest that cultural stereotyping of racial groups provides the preschool child with a predispositional evaluative framework within which more specific prejudices are easily fit. Blake and Dennis (1943) reported that at an early age Caucasian children acquired a generally unfavorable attitude toward the Negro and conceptualized the Negro as "bad" or "dirty." For adolescent Caucasians, on the other hand, conceptualizations of the Negro had differentiated into more complex and specific but still stereotyped content. Studies with Negro children have revealed that they too acquire the "black is bad, white is good" set early in childhood and generalize it to themselves and to racially-related stimuli (Stabler et. al., 1969; Taylor, 1966). Consistent with these findings have been results of Goodman (1952) and Morland (1962) in which a majority of Negro preschool Ss preferred light-skinned over dark-skinned figures in free choice situations.

From the studies cited, several general conclusions concerned with racial awareness and attitude development in young Negro and Caucasian children seem warrented:

1. Sex differences regarding racial awareness are negligible.

2. No conclusive statements can be made as to which racial group, Negro or Caucasian, demonstrates racial awareness or preference at an earlier age.
3. Young children reveal a verbal and behavioral sensitivity to the attitudes of the adult culture.
4. Responses of Caucasian children in racial evaluative situations are more consistently in the direction of the culture's patterns of rejection and hostility than are responses of Negro children.

One study (Horowitz, 1939) which reported more self-discrimination in Caucasian than Negro Ss and in males than females, used such a small sample as to make the findings, in the author's phrasing, 'limited.'

Response set to human facial expression has been used as one assessment technique in social perception experiments where social perception was defined as the manner in which one person perceived or inferred the traits of another (Bruner, 1958). Facial expression or affect has been found to be one of the most important sources for the nonverbal cues that influence interpersonal perceptions and, thus, interpersonal interactions. Gilbert (1969) made an extensive study of affect awareness in young children. She suggested from a cluster analysis of teacher ratings and intercorrelations of tests that a child's awareness of affect was a general orientation which he uses in his selective response to other people and in his awareness of self. Gilbert concluded that as a child grows older he develops greater differentiation of affect concepts and a greater tendency to make inferences con-

cerning the feelings of others. Two natural corollaries of these conclusions are that the use of perceived affect for interpretations and evaluations is learned and that this learning strengthens with increasing age.

That perceived affect becomes a source of evaluative information is seen as early as eight months of age when the infant has first demonstrated appropriate differentiations to a smiling or a frowning face (Wolff, 1961). The ability to demonstrate perceptual selectivity to discrete facial expressions has been measured objectively with children as young as three years using paired-comparison or matching paradigms (Müller, 1954). Developmental studies also have found that this ability strongly improves with age (Gates, 1923).

Several studies have demonstrated that facial affect functions as an evaluative symbol for young children. Honkavaara (1961) reported that preschool children preferred a smiling face to a distressed face in a differentiation task. Levy-Schoen (1964) studied factors involved in children's perceptions of three categories of photographed affects--happy, neutral, and unpleasant faces--in which one person posed for all expressions. The pleasant expression was consistently preferred to the neutral and unpleasant ones. It was used most frequently also to form the concept of identity in a similarity-of-persons task. This response bias for and perceived positive value of the pleasant as compared with the unpleasant affect has consistently occurred in Ss of preschool age and older (Gates, 1923; Savitsky & Izard, 1970) with the perceptual selectivity for positive affect increasing regularly with age.

Variables other than age which influence affect recognition and preference also

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have been investigated. Studies with French and with Negro and Caucasian American children have found that recognition of emotion did not vary with race or culture (Izard, 1971; Kellogg & Eagleson, 1931). Socioeconomic status, however, when systematically controlled in single-culture and cross-cultural studies, has accounted for significant variation in affect response sets (Bernstein, 1961; Izard, 1971).

## The Problem

Given the developmental and evaluative or bias variables evidenced in research investigating the perception of race and affect in young children, the present study used three age levels of Caucasian and Negro children to study the effects of each and their interactions in a "disguised structured" design. The experiment was divided into two consecutively administered tasks. Task I required Ss to place positively and negatively valued objects with photographs of either a happy Caucasian or a happy Negro child. It was hypothesized that:

1. Both Negro and Caucasian children sort objects in accordance with social stereotypes of racial group members by placing objects of positive valence with the Caucasian photograph and negative objects with the Negro photograph.
2. This pattern of response, placing positive objects with the Caucasian photograph and negative objects with the Negro photograph, increases with increasing age of Ss.
3. Caucasian children demonstrate this placement of positive objects with

the Caucasian photograph more consistently than Negro children of the same age level, and this difference increases with increasing age level of Ss.

Task II required Ss to place positively or negatively valued objects with photographs representing the four combinations of happy or sad and Negro or Caucasian child. It was hypothesized that:

1. Across all three age groups and both races of Ss the happy face stimuli receive more positive valence items than the sad face stimuli.
2. Across all three age groups and both races of Ss the Caucasian photographs receive more positive items than do Negro photographs, regardless of the affect of the photograph.
3. For both Negro and Caucasian Ss over all three age groups Caucasian photographs receive more positive items than do Negro photographs, regardless of the affect of the photograph.
4. The tendency to assign positive items to Caucasian stimuli increases with age for both races of Ss, but the increase is greater for Caucasian Ss.

## Method

Subjects. The Ss were 60 children from the Murfreesboro, Tennessee City Schools. Negro and Caucasian children were selected from three age levels. Table 1 reports the age characteristics of the Ss. The Ss were enrolled in three separate school levels, all of which were characterized by integrated classrooms. Two general selection factors applicable to all groups were presence at school on

Table 1

Age Characteristics of Children Included in the Study

| Group | Characteristics | | | | |
|---|---|---|---|---|---|
| | Race | N | Mean (Yrs.) | Range (Yrs.) | S. D. (Mos.) |
| Preschool | Negro | 10 | 4-10 | 4-4 - 5-3 | 3.53 |
| | Caucasian | 10 | 4-11 | 4-5 - 5-4 | 3.50 |
| Headstart | Negro | 10 | 5-11 | 5-8 - 6-5 | 3.10 |
| | Caucasian | 10 | 5-10 | 5-6 - 6-4 | 3.63 |
| First Grade | Negro | 10 | 6-11 | 6-8 - 7-6 | 3.54 |
| | Caucasian | 10 | 7-0 | 6-8 - 7-5 | 3.10 |

the testing day and willingness to participate in the experiment. The five-year-old Ss attended a mobile preschool which served lower-class Negro and Caucasian families in three different neighborhoods. Children in each area were randomly selected from class registers on the basis of age and race. The six-year-old Ss were selected from two of the community's Head Start centers which serve lower-class local families. Teachers from four different classrooms selected children for E on the basis of their age and race. The oldest Ss included in this study attended a public elementary school. Teachers from three first-grade-classrooms selected children on the basis of age and race. Also these Ss were informally judged by their respective teachers to belong to lower socioeconomic families.

Apparatus. Objects were selected from a sample standardized by Stabler, Johnson, Berke, and Baker (1969) for their positive or negative connotative value for lower socioeconomic Negro and Caucasian preschool children. The present author expanded this sample to include 50 objects and reestablished the presence of a definite response bias on this expanded sample of objects. Using Stabler et. al.'s methodology for item evaluation, an object was judged as positive or negative by having the child place it with a painted smiling face or a painted frowning face.

Consistent with Stabler et. al. (1969), no marked differential placements of positive or negative for any of the final 20 objects selected occurred between the 12 Negro and 12 Caucasian, male and female, preschool and first grade Ss tested in the pilot study. Also, no age or sex differences were demonstrated. The 10 positively evaluated and 10 negatively evaluated objects selected for the major

study are reported in Table 2 and were selected for the major study from among those objects rated as positive or negative by 23 or 24 of the 24 Ss in the pilot study.

The black and white, 5 x 7 inch stimulus photographs of male Negro and Caucasian children used in the major study were taken by the author. They were selected from among several shown to the 24 Negro and Caucasian children in the pilot study on the basis of ease with which the different categories of affect (happy or sad) and race (Caucasian or Negro) were discriminated and labelled as such by children in the appropriate age range.

In the major study a 9 x 21 inch plexiglass lattice (four cells by five cells) held the 20 objects in the same array for each S during Task I and Task II. The objects were sorted into plexiglass trays, 11 inches in length which were partitioned into five compartments and were open across the top. Each individual photograph was held in a plexiglass stand, centered 4.5 inches above an object tray.

Procedure. A Caucasian female E, the author, administered Task I followed immediately by Task II to all Ss. The left-right position of the two Task I photographs was randomly assigned to each S. There were 24 different sequences possible for the four photographs in Task II (eg. happy-Caucasian, sad-Caucasian, sad-Negro, happy-Negro). For each S, the sequence of Task II photographs was predetermined by selecting a sequence number from a table of random numbers.

Each S was taken from his classroom to the testing room by E, who had been previously introduced to the class as a teacher who had brought a game for several of the children to play. In the testing room, a quiet, vacant room in the school,

Table 2

Stimulus Objects for Task I and Task II

| Positively Evaluated | Negatively Evaluated |
|---|---|
| 1. airplane (toy) | 1. bandage |
| 2. bubble gum | 2. handcuffs |
| 3. car (toy) | 3. hypodermic needle |
| 4. flag (USA) | 4. plant thistle |
| 5. flower (plastic) | 5. razor blade container |
| 6. harmonica | 6. snake (rubber) |
| 7. ice cream cone (plastic) | 7. spider (plastic) |
| 8. nickel | 8. stick |
| 9. ring | 9. tin can (smashed) |
| 10. wallet | 10. tissue (dirty) |

the S was asked to sit at a small table in front of the apparatus which had been positioned for Task I. As the task apparatus of objects and children's photographs was intrinsically interesting, Ss were quickly at ease and talked with E about the "game equipment." E emphasized the game-like nature of the task and gave each S the same set of rules. With the 20 objects and two photographs in full view, each S was told:

> The child in each photograph wants to fill his boxes with the objects you see. Take any object in front of you and place it in a box of the child to whom you feel it belongs. Then take another object and give it to the same child, or to the other child, depending on which one you feel owns the object. You must give each object to one of the children, but you may change your mind while you are playing the game and take an object away from one child and give it to the other child. At the end of the game each child must have his 10 boxes filled, with one object in each box.

The initial and final placement of each object was recorded by E during the task.

When S finished Task I to his own satisfaction, E repositioned the objects in the array, separated the two trays of 10 compartments into four trays of five compartments, and introduced two additional photographs, the Negro child and the Caucasian child used in Task I, each photographed with a sad facial expression. With the 20 objects and four photographs in position, each S was instructed with the previously stated instructions modified to fit the additions to the task situation (refer to Figure 1). The initial and final placement of each object was recorded as were many of the spontaneous comments verbalized by the Ss as they manipulated and sorted the positively and negatively evaluated articles.

## Results

Fig. 1. Photograph of Subject in Task II Experimental Situation

Task I. The mean number of placements of positive objects to the Caucasian photograph and to the Negro photograph for the Caucasian and Negro Ss at each of the three age levels is given in Table 3 and presented graphically in Figure 2. For the purposes of analysis, only the number of positively valued objects assigned to the photographed Caucasian child was considered. This approach was used since there was a fixed number of positive objects (10) and the score for the photographed Negro child would be the complement of that for the Caucasian photograph.

The hypothesis that both Caucasian and Negro Ss would respond by assigning disproportionately large numbers of positive items to the Caucasian stimulus was tested using binomial probabilities and Fisher's chi-square technique for pooling probabilities from independent replications (Guilford, 1965). Each S's assignment of the 10 positive objects was treated as an experiment in itself. The probability that the obtained number (or a greater number) of positive assignments to the Caucasian stimulus under conditions of equiprobability and random assignment was obtained for each S. The natural logarithms of these probabilities were obtained and combined within each race x age group. The resulting $X^2$ values are presented in Table 4. They indicate that there is no significant evidence of any racial preference in the response of Negro Ss at any of the three age levels included in the study. Caucasian Ss, on the other hand, while not exhibiting a racial preference at a significant level at age 5, do show preference for the Caucasian stimulus at ages 6 and 7 ($p < .05$).

The analysis of variance on the 3 x 2 (Age x Race of S) factorial design was

Table 3

Mean Positive Placements to Task I Photographs

| Age | Race | Photographs | |
|---|---|---|---|
| | | Caucasian | Negro |
| 5 Yrs. | Caucasian | 5.9 | 4.1 |
| | Negro | 5.4 | 4.6 |
| 6 Yrs. | Caucasian | 6.6 | 3.4 |
| | Negro | 5.8 | 4.2 |
| 7 Yrs. | Caucasian | 7.0 | 3.0 |
| | Negro | 5.4 | 4.6 |

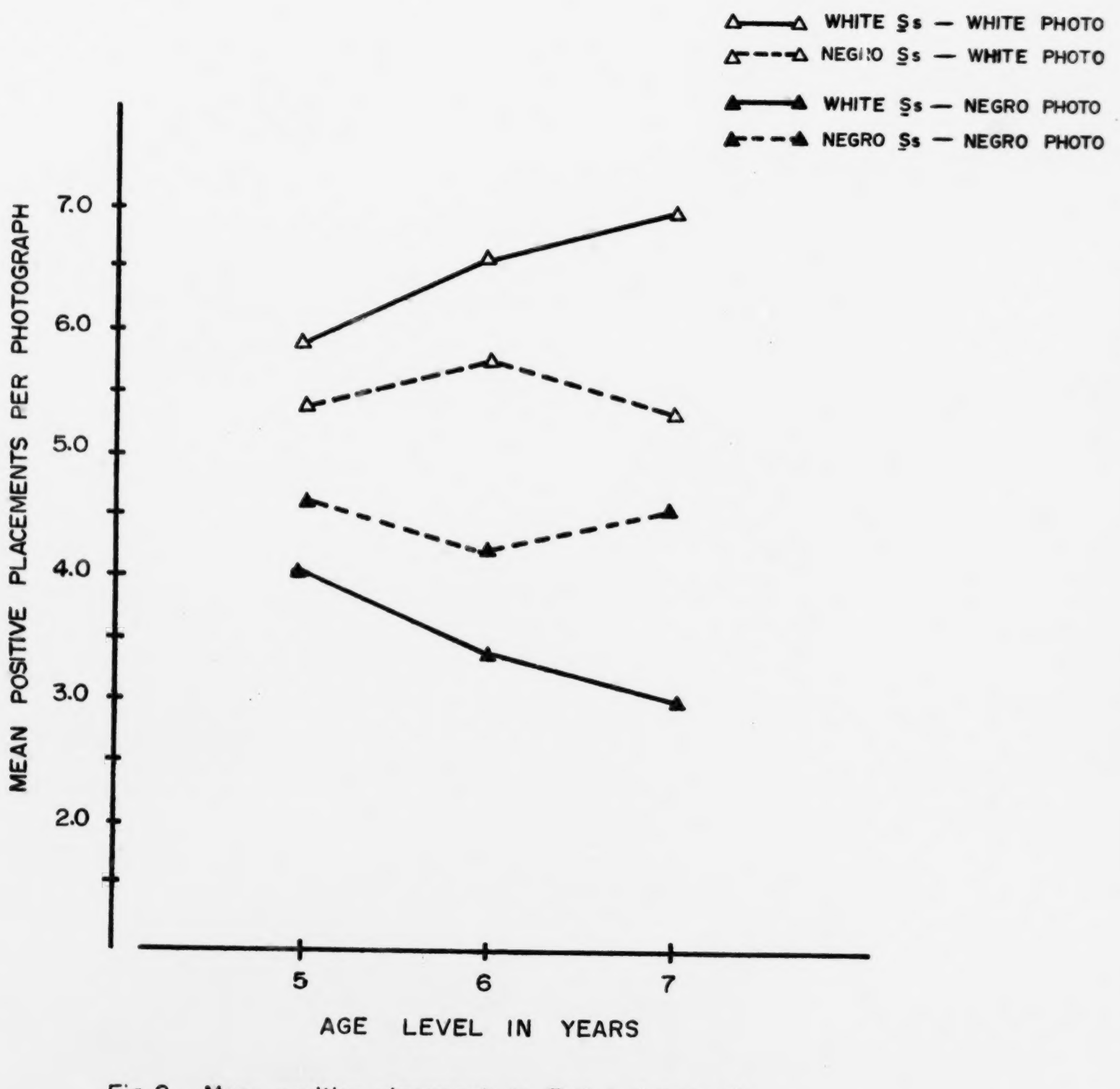


Fig. 2 Mean positive placements to Task I photographs by Negro and Caucasian Ss at 3 age levels.

Table 4

Chi-square Values for Combined Probabilities of Preference for Caucasian Photograph*

| Race of Subjects | Age of Subjects | | |
|---|---|---|---|
| | 5 Years | 6 Years | 7 Years |
| Caucasian | 24.13 | 36.14* | 42.48* |
| Negro | 14.92 | 24.06 | 17.19 |

*$X^2_{.95}$=31.40; df=20

conducted through a series of orthogonal comparisons. The hypotheses, variances, and variance ratios are presented in Table 5. It is apparent that only the main effect of race was significant, with Caucasian Ss assigning more positive items to the Caucasian stimulus photograph than the Negro Ss. The sample data also were in the directions predicted by the hypothesis that older children would assign more positive objects to the Caucasian stimulus photograph, but the results of this analysis were not signifcant at the .05 level. The difference between incidence of Negro and Caucasian assignments of positive objects to the Caucasian stimulus photograph increased at each successive age level as was predicted, but the interaction variance ratios fell short of significance at the .05 level.

Task II. The scores recorded for each S were the numbers of positive objects assigned to each of four stimulus photographs--happy Caucasian; sad Caucasian; happy Negro; and sad Negro. Because there were only 10 positive objects to be distributed by each S, the total score for each S was 10. Since each S assigned a total of five objects to each stimulus photograph, his score of positive objects for each photograph ranged from 0 through 5.

The mean number of placements of positive objects to each of the four Task II photographs for Negro and Caucasian Ss at each of the three age levels is reported in Table 6 and presented graphically in Figure 3.

The total experimental design for Task II hypotheses is presented in Figure 4. The analysis of variance summary table is presented in Table 7. It will be noted there that all Between Subjects components are zero, a condition arising out of the

Table 5

Orthogonal Comparisons of Task I Factorial Design

| Hypothesis | df | Variance | Variance Ratio |
|---|---|---|---|
| 1. $2\mu_5-(\mu_6+\mu_7)=0$ | 1 | 6.05 | 2.69 |
| 2. $\mu_6-\mu_7=0$ | 1 | 0.00 | 0.00 |
| 3. $\mu_{Cauc.\ \underline{Ss}}-\mu_{Negr.\ \underline{Ss}}=0$ | 1 | 14.02 | 6.23* |
| 4. $\left[2\mu_5-(\mu_6+\mu_7)\right]_{Cauc.\ \underline{Ss}}-\left[2\mu_5-(\mu_6+\mu_7)\right]_{Negr.\ \underline{Ss}}=0$ | 1 | 2.45 | 1.09 |
| 5. $(\mu_6-\mu_7)_{Cauc.\ \underline{Ss}}-(\mu_6-\mu_7)_{Negr.\ \underline{Ss}}=0$ | 1 | 1.60 | 0.71 |
| Error (Within $\underline{Ss}$) | 54 | 2.25 | |

*$p < .05$

Table 6

Mean Positive Placements to Task II Photographs

| Groups | Photographs | | | |
|---|---|---|---|---|
| | Happy Caucasian | Sad Caucasian | Happy Negro | Sad Negro |
| Caucasian 5 Years | 3.4 | 2.0 | 3.3 | 1.3 |
| Negro | 3.2 | 1.9 | 2.7 | 2.2 |
| Caucasian 6 Years | 3.7 | 1.9 | 3.2 | 1.2 |
| Negro | 3.7 | 1.5 | 3.7 | 1.1 |
| Caucasian 7 Years | 4.3 | 1.8 | 2.6 | 1.3 |
| Negro | 4.2 | 0.6 | 3.9 | 1.3 |
| Photograph Mean | 3.75 | 1.62 | 3.23 | 1.40 |

| | Photographs | |
|---|---|---|
| | Caucasian | Negro |
| Racial Mean | 2.69 | 2.32 |

| | Photographs | |
|---|---|---|
| | Happy | Sad |
| Affect Mean | 3.49 | 1.51 |

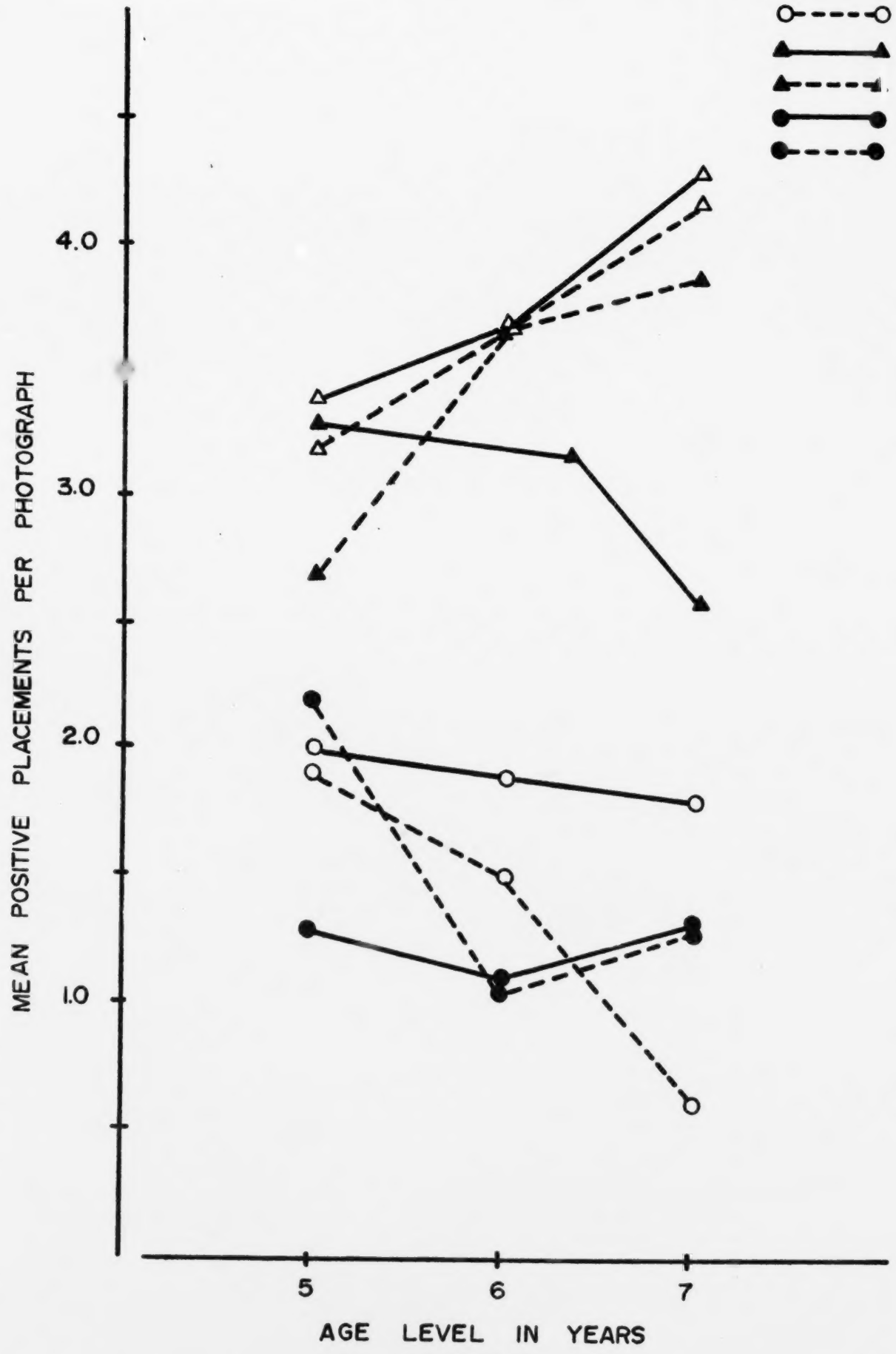


Fig. 3 Mean positive placements to Task 2 photographs by Negro and Caucasian Ss at 3 age levels.

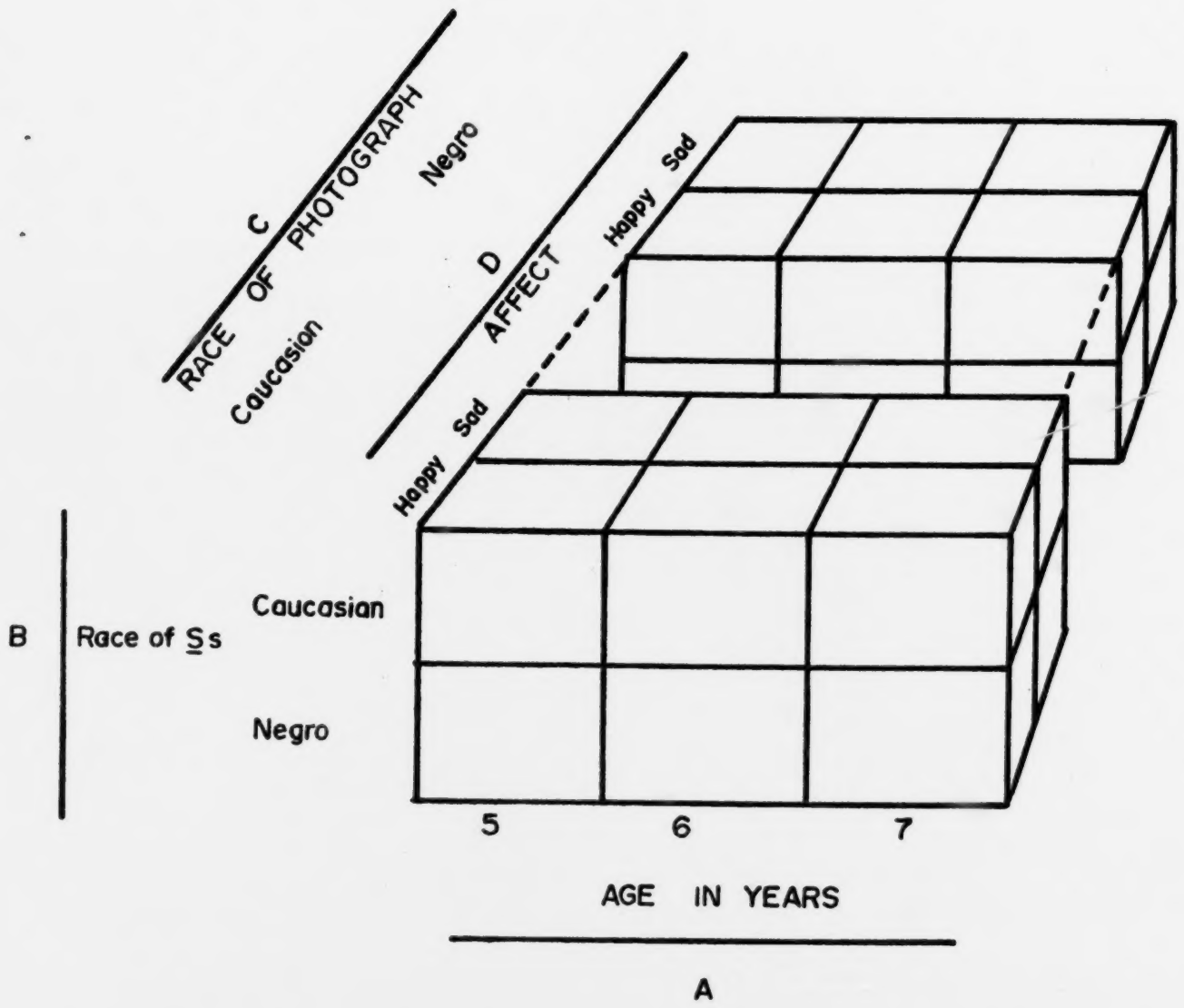


Fig. 4 Diagram of Task 2 experimental design.

Table 7

Analysis of Variance: Task II

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Between Subjects | | | | |
| Age of S (A) | 0 | - | - | - |
| Race of S (B) | 0 | - | - | - |
| A x B | 0 | - | - | - |
| Within Subjects | | | | |
| Race of photo (C) | 8.07 | 1 | 8.07 | 9.95* |
| Affect of photo (D) | 236.02 | 1 | 236.02 | 117.90* |
| C x D | 1.35 | 1 | 1.35 | 1.87 |
| A x C | 0.43 | 2 | 0.22 | 0.27 |
| A x D | 15.23 | 2 | 7.62 | 3.81* |
| B x C | 6.67 | 1 | 6.67 | 8.22* |
| B x D | 1.35 | 1 | 1.35 | 0.67 |
| A x C x D | 5.20 | 2 | 2.60 | 3.60* |
| B x C x D | 0.42 | 1 | 0.42 | 0.58 |
| A x B x C | 3.03 | 2 | 1.52 | 1.87 |
| A x B x D | 10.30 | 2 | 5.15 | 2.57 |
| A x B x C xD | 2.13 | 2 | 1.07 | 1.48 |
| Error (w) | | | | |
| C x Ss w Groups | 43.80 | 54 | 0.81 | |
| D x $\bar{S}$s w Groups | 108.10 | 54 | 2.00 | |
| C x $\bar{D}$ x Ss w Groups | 39.30 | 54 | 0.78 | |
| Total | 482.00 | | | |

*$p < .05$

fixed number (10) of positive objects. Less apparent, but a factor to be considered in interpreting the data is the linear restriction of possible scores across the four stimulus conditions.

The most dramatic finding apparent in Figure 3 and in Table 7 was the overwhelming preference of children for the happy stimuli rather than the sad. Across all three age groupings and for both races of Ss, the happy stimulus of either race received a higher mean placement of positive objects than did any of the sad stimulus photographs. From Figure 4 it is also evident that the happy Caucasian photograph comes to be preferred by both Negro and Caucasian Ss.

Because of the significant interaction of age with race and affect of photograph (represented graphically in Figure 5), sub-analyses were conducted for Caucasian and Negro photographs separately. The results of these 3 x 2 x 2 (Age of Ss x Race of Ss x Affect of photograph) independent analyses (Lindquist Type III) indicated that the age x affect interaction was significant only for the Caucasian photographs ($F=8.23$; $df=2/54$; $p < .05$), with Ss of both races assigning an increasing number of positive items to the happy Caucasian photograph with increasing age. The age x affect interaction for the Negro photographs failed to reach signifcance at the .05 level ($F=1.55$; $df=2/54$; $p < .25$).

A second result prompting more specific investigation was the significant interaction in Table 7 between the race of S and race of stimulus photograph. The mean numbers of positive items assigned by Negro and Caucasian Ss to the photographs of each race regardless of affect and age are presented graphically in Figure 6. It is

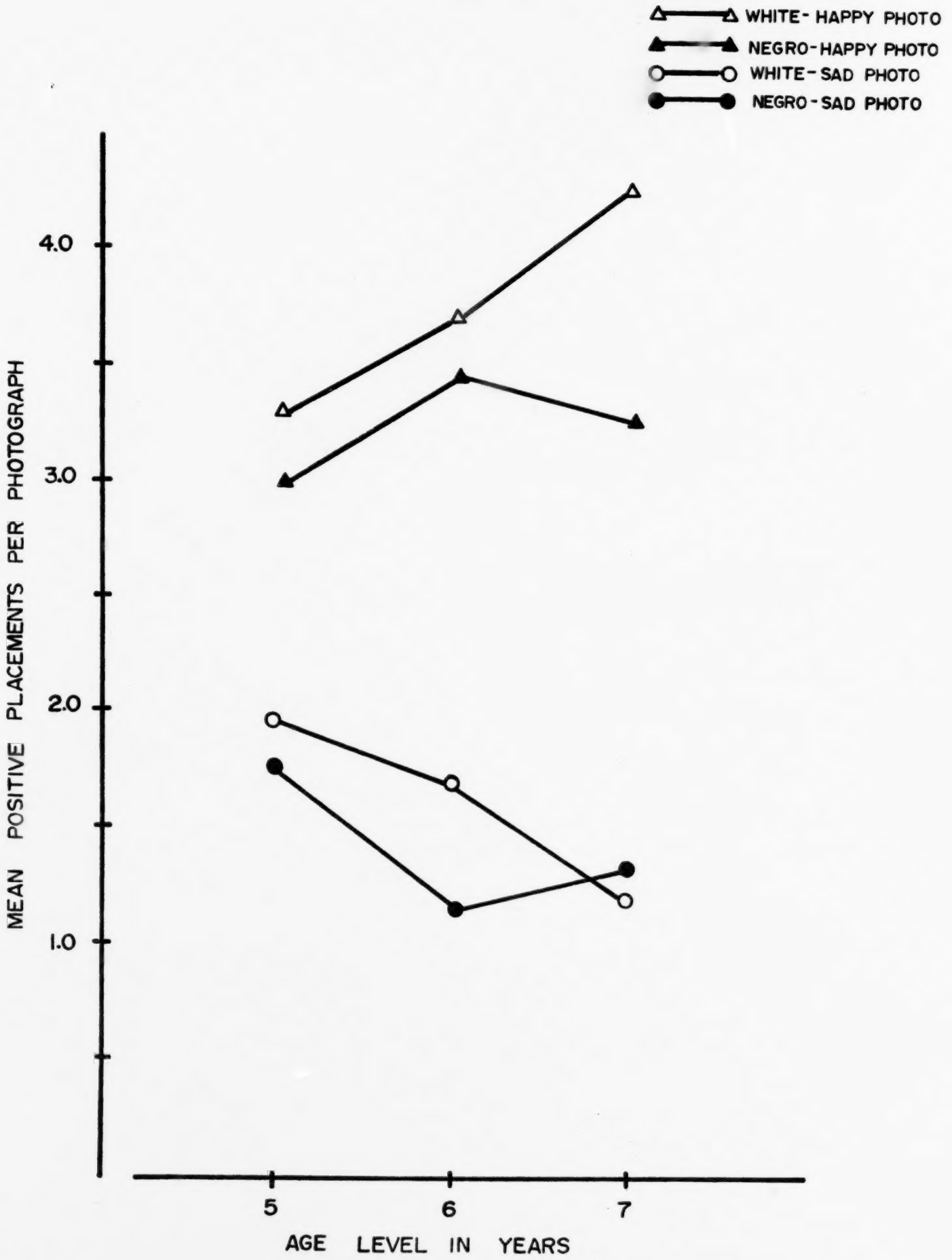


Fig. 5 Mean positive placements to Task 2 photographs represented by the age x race of photograph x affect interaction.

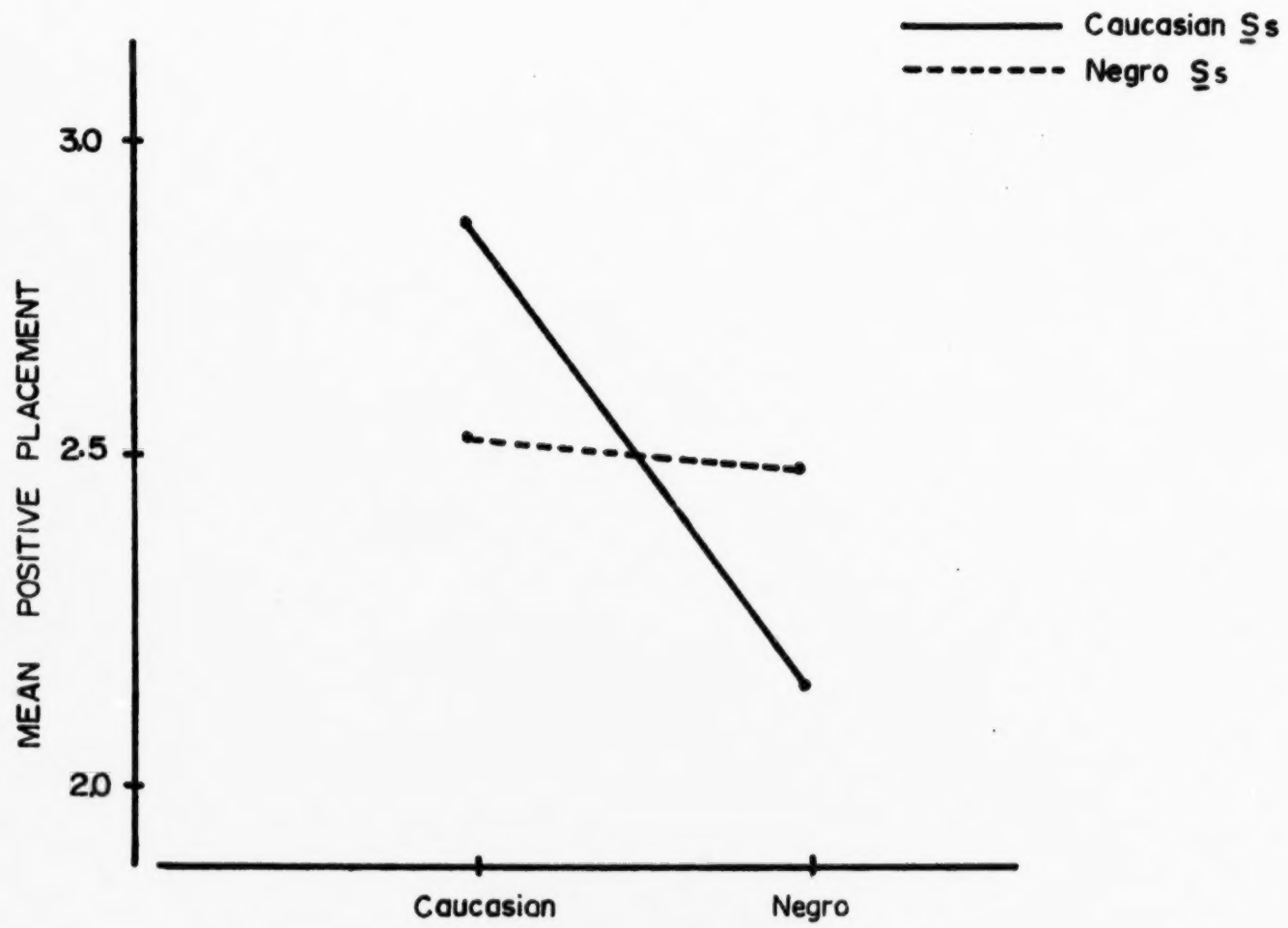


Fig. 6 Mean positive placements to Task 2 photographs represented by the race of Ss x race of photograph interaction.

apparent that the assignments of positive objects were in the Caucasian-biased direction as predicted for both Negro and Caucasian Ss. A t statistic was used to test the difference between the mean number of positive placements to the two races of photographs for the Caucasian Ss. A separate t test was applied to the mean placement scores of the Negro Ss. The resulting t values indicated a significant preference by the Caucasian Ss for the Caucasian photograph ($t=4.27$; $df=54$; $p < .05$). The Negro Ss, on the other hand, did not exhibit any significant racial preference ($t=.24$; $df=54$; $p > .25$).

## Discussion and Summary

Task I. The results of this study suggest that measurement techniques frequently used in research concerned with perception of affect are appropriate for assessing trends in young children's racial preferences. In brief the data of this preliminary study indicated that as the Caucasian Ss increased in age, their preferences for the Caucasian over the Negro photograph consistently strengthened. Negro Ss did not demonstrate this marked divergence trend although their responses were in the Caucasian-preferred direction for all age levels included in the study.

Contradictory reports have been made concerning the age at which rudimentary racial evaluations appear in Negro and Caucasian children (Goodman, 1952; Landreth et. al., 1953). The present data, however, clearly indicated that a stronger bias evolved earlier in Caucasian than in Negro Ss. The sensitivity of the present instrument to age differences in racial preference emergence may be a

function of the objective and forced-choice nature of the task. Studies of a more projective and verbal nature have had to deal with noninterpretable, contradictory, or avoidance responses from young subjects (Radke et. al., 1950).

It was predicted that both races of Ss at each of the age levels would place positive objects with the Caucasian photograph and negative objects with the Negro photograph. While this prediction was confirmed specifically only for the six- and seven-year-old Caucasian Ss, preference for the Caucasian photograph held generally across both races and all three ages. These findings are generally consistent with other studies in which both Caucasian and Negro Ss of these ages and younger demonstrated definite Caucasian-biased, stereotyped responses (Goodman, 1952; Stevenson et. al., 1958).

Several alternate explanations may be given for the fact that these results did not show a significant Caucasian preference in each age and racial group. It is possible that for the Negro Ss the nonthreatening and nonverbal demands of this methodology did not evoke the same acquiescent response patterns as tasks which involve direct verbal confrontation. A second and related explanation, applicable to both races of Ss, is the verbal-behavioral discrepancies revealed by children in inter-racial situations (Allport, 1954). It is possible that the present instrument elicited responses of racial preference which lie somewhere between reported spontaneous racial acceptance in actual interactions and the documented verbal rejections of similar--but pictorially represented--racial situations (Goodman, 1952). Finally, it must be recognized that the differences reported here were

obtained on a relatively small sample of children.

The basic prediction of a developmental increase in the number of positive items placed by both Caucasian and Negro Ss was not demonstrated in the orthogonal comparison for an age effect. A chi-square test for combined probabilities did reveal for Caucasian Ss an increase in disproportionate assignments favoring the Caucasian photograph which increased with increasing age. As evidenced in Figure 2, however, the developmental predictions were not confirmed by the responses of the Negro Ss. It would be interesting, particularly in reference to the development of Negro Ss' responses, to include older children in a task with the present assessment method. Taylor (1966) in a study of Negro and Caucasian children between the ages of six and 10 found that the older the children, the more likely they were to express negatively valued stereotypes of Negroes. The results of the present study, if the age trends were projected, would appear to predict the opposite conclusion for older Negro Ss.

It was hypothesized that Caucasian children would place positive items with the Caucasian photograph more consistently than Negro children of the same age level. It was also predicted that this difference between Caucasian and Negro Ss would increase with increasing age levels of Ss. These predictions were completely confirmed as Caucasian Ss consistently preferred their own-race photograph and showed a developmental increase in this biased response pattern. These results agreed with conclusions from other racial attitude research with young children. Among projective studies Radke et. al. (1950) found a Caucasian doll

was preferred by 89 percent of the Caucasian Ss; a Negro doll was preferred by 57 percent of the Negro Ss. Landreth et. al. (1953) and Renninger et. al. (1966) reported that Caucasian groups consistently showed significant preferences for Caucasian figures when paired with Negro figures. The finding of this study that Caucasian Ss placed positive objects with the Caucasian photograph more consistently than Negro Ss also agrees with results from an abstract or "disguised-structured" task. Stabler et. al. (1969) reported that Caucasian and Negro preschool Ss guessed that "good" objects were in a white box and "bad" objects were in a black box with Caucasian children revealing this response bias with greater consistency than Negro children.

Task II. The primary purpose of this study was an investigation of developmental shifts in the relative saliency of race and affect for young children. The impact of the smiling affect as a preferred visible cue which increases in attractiveness with increasing age of the child has been well documented (Levy-Schoen, 1964; Savitsky et. al., 1970) and is dramatically confirmed by the results of the second task. As was predicted for all three age groups and both races of Ss, the happy face stimulus of either race received a higher mean placement of positive items than did the sad stimulus photograph. Thus the discrete facial expressions were differentiated and consistently determined appropriate response biases for the pleasant as compared with the unpleasant affect.

It is important to note response shifts which occurred with different stimulus combinations of affect and racial dimensions. Separate analyses of the Caucasian

and Negro photographs revealed that an age by affect interaction was significant for the Caucasian but not for the Negro photographs. Affect was a more effective evaluative cue when combined with photographs of a Caucasian child for both races of Ss. The facial expressions of the Negro photographs did not significantly elicit the same selective and appropriate differentiations. Valuations of the Negro photographs were apparently made on the basis of different selective factors. Perhaps Allport's (1954) hypothesis is applicable: "So overpowering is the impact of color upon our perception that we frequently go no further in our judgment of the face (p. 134)."

The hypothesized preference for the Caucasian photographs by all Ss across the three age groups was confirmed. An interpretation of this finding is clarified, however, if one notes the significant interaction between race of S and race of photograph. Only those placements made by Caucasian Ss to the Caucasian stimuli proved to be statistically significant. Negro children demonstrated no definite preferences. Morland (1962) reported a similar finding when comparing young children's preferences for Caucasian or Negro playmates. In a sample of three-, four-, and five-year-old Negro and Caucasian children, 72.6 percent of the Caucasians and 57.9 percent of the Negroes preferred Caucasian playmates. Racial preference trends such as these have been discussed by Goodman (1952). She described young Negro children as basically "out-group oriented" and as possessing a sense of direction away from Negroes and towards whites. Caucasian children, on the other hand, were characterized as "in-group oriented" without

the racial self-doubt of Negro children. The racial-preference results of the present study are perhaps best interpreted as instances of such sub-population differences in orientation as opposed to inferences of mature prejudiced styles.

Although it was predicted that both Negro and Caucasian Ss over all three age levels would assign more positive items to the Caucasian than to the Negro photographs, this prediction was not confirmed. An inspection of Figure 3 indicates that at each of the three age levels Negro Ss assigned an equal or greater number of positive items to the Negro as compared to the Caucasian photograph of similar affect. An explanation for the discrepancy of the Negroes' responses from the predicted preference for Caucasian stimuli is, therefore, related to the interaction between race of S and race of photograph discussed in the preceding paragraph. Stabler et. al. (1969) in explaining similar results with preschool children concluded that racial attitudes of the larger society have been incorporated by children of both races, but by Caucasian more than by Negro children.

The final hypothesis, that the tendency to assign positive objects to Caucasian stimuli increases with age for both races of Ss with a greater increase for Caucasian Ss was not confirmed. The major explanation lies in the dramatic saliency of affect in determining the responses of both races and all ages of Ss. In Task I when positive items were placed by both Negro and Caucasian Ss at all three age levels favoring the Caucasian stimulus, the visible cues for information and evaluation were racial cues. It is evident in Task II that the addition of a second evaluative dimension, that of perceived affect, shifted both the consistency and the direction of racial

judgments. Due to the ipsative nature of the Task II scores, however, the precise effects of race upon affect or affect upon race were obscured as was the specific contribution of each to the shifts in preference.

Although racial and affect preference differences between the sexes of Ss were not predicted, a division of the Task II scores by sex of Caucasian and Negro Ss for each of the three age levels was made on a post hoc basis. The mean frequencies of positive objects placed with each of the four photographs indicated no stable differences between the subjects when analyzed by sex. This finding is consistent with related literature on racial preferences which has reported no biases attributable to sex in young Caucasian and Negro children.

An analysis of the methodology and results of this study indicated that racial and affect dimensions of facial photographs did define shifts in the preferences of Negro and Caucasian children for the photographs. Sherif and Cantril (1947) have suggested that the primary stage in the formation of attitudes is the perceptual stage. The results of the present study also suggest that racial evaluations in a task situation change as a function of perceptual frames of reference. Perceived affect is only one of the visible characteristics highly susceptible for incorporation and evaluative use by young children. Other naturally-occurring informational and evaluative cues are perceived, classified, and generalized by young children. Frames of reference which evoke judgments of inferior or superior are focused by verbal, behavioral, as well as physical variables. And such frames of reference when extended to those features defined by the culture as "racial" are more frequently

related to associations with antecedent, adopted judgments than to the perceptible cue itself.

Renninger et. al. (1966), Stabler et. al. (1969), and Williams et. al. (1969) have demonstrated experimentally that the visible colors and linguistic labels of "black" and "white" function as reinforcers of stereotyped negative and positive value connotations of Negro and Caucasian referents. The present study suggests one related line of experimental inquiry which would investigate those salient cues similar to perceived affect which act as determinants of behavior in young children and which could be manipulated to intersect, contradict, or possibly shift existing categories of racial prejudgments.

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# APPENDIX A

40/41/42

## DUPLICATIONS OF TASK PHOTOGRAPHS

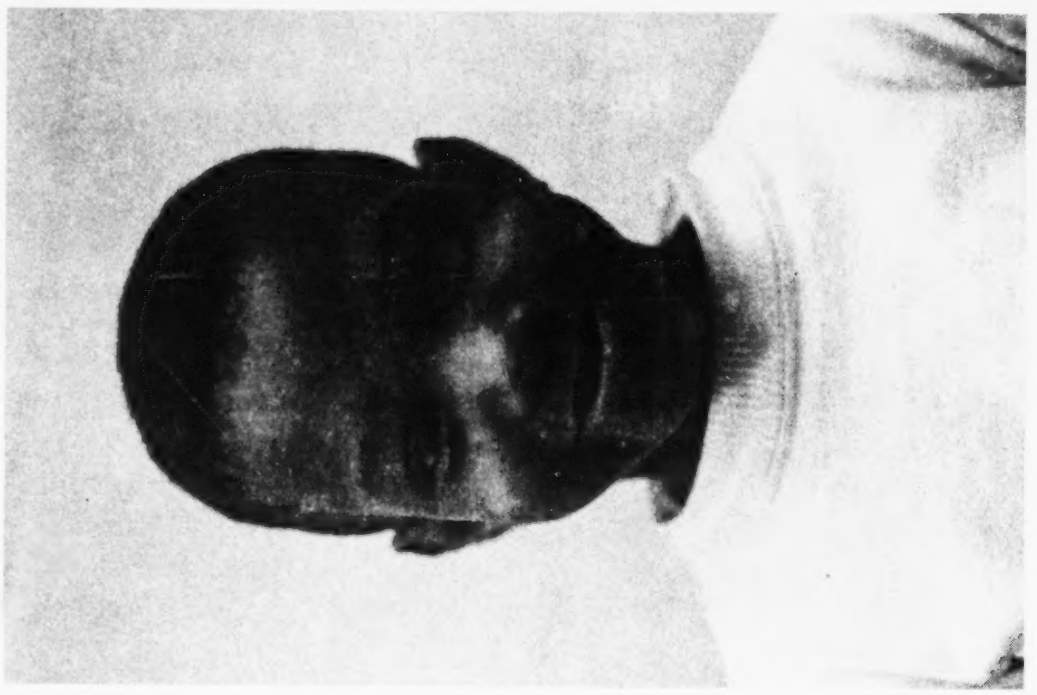

Fig. 7. Photographs used in both Task I and Task II

Fig. 8. Photographs used in Task II only

## APPENDIX B
## SAMPLE DATA RECORDING FORM

44/45

Subject _____ Sex _____ Race _____

School _____ Grade _____ Birthday _____

Date etc _____

| Objects | TASK I order of photos ___ ___ order from array | 1st placement | 2nd placement | final placement | TASK II order of photos ___ ___ ___ ___ order from array | 1st placement | 2nd placement | final placement |
|---|---|---|---|---|---|---|---|---|
| 1. airplane (toy) | | | | | | | | |
| 2. bubble gum | | | | | | | | |
| 3. car (toy) | | | | | | | | |
| 4. flag | | | | | | | | |
| 5. flower (plastic) | | | | | | | | |
| 6. harmonica | | | | | | | | |
| 7. ice cream cone (plastic) | | | | | | | | |
| 8. nickle | | | | | | | | |
| 9. ring | | | | | | | | |
| 10. wallet | | | | | | | | |
| 11. bandage | | | | | | | | |
| 12. handcuffs | | | | | | | | |
| 13. hypodermic needle | | | | | | | | |
| 14. plant thorn | | | | | | | | |
| 15. razor blade container | | | | | | | | |
| 16. snake (rubber) | | | | | | | | |
| 17. spider (rubber) | | | | | | | | |
| 18. stick | | | | | | | | |
| 19. tin can (crushed) | | | | | | | | |
| 20. tissue (dirty) | | | | | | | | |

No. of positive placements

wh _____

bl _____

No. of positive placements

wh _____

wf _____

bh _____

bo _____

APPENDIX C



## ADDITIONAL TABLES

### Table 8

Analysis of Variance: Task II Caucasian Photographs

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Within Subjects | | | | |
| Affect (D) | 136.53 | 1 | 136.53 | 152.65* |
| Age x Affect (A x D) | 14.72 | 2 | 7.36 | 8.23* |
| Race of S x Affect (B x D) | 1.63 | 1 | 1.63 | 1.83 |
| Age x Race of S x Affect (A x B x D) | 1.82 | 2 | 0.91 | 1.02 |
| Error (w) | 48.30 | 54 | 0.89 | |

*$p < .05$

Table 9

Analysis of Variance: Task II Negro Photographs

| Source | SS | df | MS | F |
|---|---|---|---|---|
| Within Subjects | | | | |
| Affect (D) | 100.83 | 1 | 100.83 | 54.62* |
| Age x Affect (A x D) | 5.72 | 2 | 2.86 | 1.55 |
| Race of S x Affect (B x D) | 0.13 | 1 | 0.13 | 0.07 |
| Age x Race of S x Affect (A x B x D) | 10.62 | 2 | 5.31 | 2.86 |
| Error (w) | 99.70 | 54 | 1.85 | |

*p < .05

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